

# **Greenhouse Gas Emission Reduction (Power Stations) Bill 2008**

## **Explanatory Memorandum**

The purpose of this Bill is to introduce a minimum greenhouse gas emission standard for new power stations in Western Australia.

### **1. Short title**

This is the citation of the Act.

### **2. Commencement**

Provides that the Act comes into effect immediately on Royal Assent.

### **3. Terms used in this Act**

Defines terms used in the Act.

### **4. Objects of Act**

Defines the object of the Act, which is to limit the greenhouse gas intensity of new power stations constructed in Western Australia.

### **5. Crown bound**

Provides that the Crown is bound by the Act.

### **6. Greenhouse gas emissions intensity standard**

Defines greenhouse gas emissions intensity standard as 500 kilograms of carbon dioxide equivalent per megawatt hour of electricity sent out.

The following table indicates the greenhouse gas intensity of a selection of current electricity sources.

**Table: Greenhouse Gas Intensity of Selected Electricity Sources**

<b>Type of Power station</b>	<b>Emissions Intensity (kg-CO<sub>2</sub>e/MWh)</b>
Conventional coal-fired power station (black coal, subcritical)	920
Advanced Coal Combustion	800
Open Cycle Gas	550
Combined Cycle Gas	380 to 420
Advanced Coal Combustion with Carbon Capture and Storage	120
Renewable technologies	Near zero

*Sources:*

- *Figure for conventional coal-fired power station from Draft Greenhouse Gas Abatement Plan for Bluewaters Power Station*
- *Figure for open cycle gas from Ministerial Statement 759 applying to Neerabup Power Station (figure rounded from 554 kg-CO<sub>2</sub>e/MWh)*
- *Remaining figures from Next Energy, 'Supply Side Options for Western Australia's Stationary Energy' (2006).*

It should be noted that small diesel and peaking open cycle gas plants do not have to comply with the general greenhouse gas emissions intensity standard (see clause 8(3)). The operation of these plants would not be affected by the Bill, except to the extent that separate emission standards are set by regulations (see clause 10(2)).

**7. Minister to publish determination**

This clause requires the responsible Minister (who would logically be the Minister for Climate Change), to determine the classes and types of power stations that do and do not meet the greenhouse gas emissions intensity standard. This determination may be amended from time to time.

The initial determination and any amendments to that determination must be made on the advice of the Environmental Protection Authority, and must be published in the Government Gazette.

The clause provides that the net emissions from biomass power stations should be considered. This will ensure that biomass power stations can qualify as power stations that comply with the greenhouse gas emissions intensity standard.

## **8. Requirement to comply with greenhouse gas emissions intensity standard**

Subclause (1) prohibits a person from constructing or operating a new power station unless it is of a class or type that has been determined under clause 7 to meet the greenhouse gas emissions intensity standard. The clause does not apply to power stations already in existence at the time the Act comes into effect. This is consistent with the object of the Act, which is to establish a standard applying to new power stations. A maximum penalty of \$500,000 applies to natural persons. By virtue of section 40 of the *Sentencing Act 1995* a maximum penalty of 5 times this amount applies to corporations.

Subclause (2) provides that no approval or authorisation shall be given to facilitate the construction or operation of a new power station unless it is of a class or type that has been determined under clause 7 to meet the greenhouse gas emissions intensity standard. This would prevent, for example, approvals being granted under environmental, planning or electricity industry legislation.

Subclause (3) provides that the preceding subclauses do not apply to small power stations of 50 megawatts or less, or to peak load power stations. The former category allows for the operation of small diesel generators for which there may be no practicable alternative power generation option that meets the greenhouse gas emission intensity standard. The latter category caters for the operation of open cycle gas turbines as peaking plant. Given the small time for which such plants operate each year there is a relatively little difference between greenhouse gas emissions associated with the operation of open cycle compared to combined cycle peaking plant.

## **9. Regulations**

Subclause (1) is a standard clause empowering the making of regulations.

Subclause (2) makes clear that regulations may prescribe minimum emissions intensity standards for power stations referred to in clause 8(3).

## **10. Review of Act**

This clause requires the Act to be reviewed within 5 years from its commencement, and for the Minister to prepare a report based upon that review and to table that report in each House.